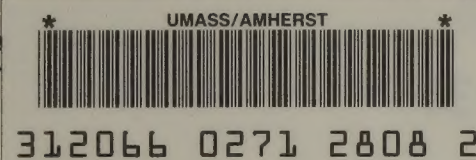


GOVERNMENT DOCUMENTS  
COLLECTION



## Program Description

Established cooperatively in 1978 by the Commonwealth and The Nature Conservancy, the Massachusetts Natural Heritage Program (MNHP) began work to determine the locations and status of the state's rarest and most vulnerable natural features. Today, our comprehensive, statewide data base includes about 4000 rare species and natural community records contained in a set of cross-referenced map, manual, and computer files. Forty-three Natural Heritage Programs have been established by the Nature Conservancy in conjunction with state governments throughout the country; collectively our goal is to preserve the nation's biological diversity.

The MNHP collects and manages information on 175 rare animal species, 250 rare vascular plant species, and 20 ecologically significant natural community types throughout the Commonwealth. Our data base is regularly updated with new information from ongoing fieldwork and research, and as the statuses of species or of specific sites change.

The MNHP employs its information to encourage the conservation of the state's natural diversity. The data are applied by the MNHP and a wide range of public and private conservation agencies to protect the most ecologically significant areas through land acquisition, voluntary protection agreements, and species and habitat management. The data are also considered in state and federal environmental review processes and by private consultants early in project planning to identify in advance and avert possible adverse impacts to rare species and their habitat.

## Examples Of Our Activities

### INVENTORY AND RESEARCH

Rediscovery of over 80% of the rare plant species on our rare species list, most of which had not been recorded in the state since 1940. This includes the 1980 rediscovery of a species of gerardia, Agalinis acuta, presently known from seven places in the world, two of them on Cape Cod, and the verification of the 1983 rediscovery of a federally Endangered orchid, the Small Whorled Pogonia, last recorded in the state in 1899. Additionally, five native rare plant species, previously unrecorded in Massachusetts, have been discovered.

Censuses of Upland Sandpipers and Grasshopper Sparrows at four air bases in the state. Management planning by the MNHP for these rare grassland birds at these properties is currently underway.

Initiation and organization of statewide surveys of mole salamanders (Ambystoma spp.) and other rare amphibians and reptiles. Over 50 volunteer field observers collect data in about 40 towns during our annual survey.

Coordination of a statewide coastal survey of Piping Plovers. About 30 volunteers in 1986 censused 140 nesting or territorial pairs of this federally Threatened shorebird, the largest breeding population in eastern North America.

Comprehensive inventory of all Coastal Plain ponds in Plymouth and Barnstable counties; 20 rare plant species occur in this nationally significant natural community. Ongoing research and fieldwork is conducted on other natural communities in Massachusetts as well, including sandplain grasslands, limestone wetlands, and the largest remaining old growth forest in southern New England.

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Statewide inventory of regionally rare butterflies and moths, resulting in the rediscovery of several species thought to have been extirpated in New England.

Administration of a Small Research Contracts Program. In 1986, 19 cooperating researchers were awarded contracts for field inventories and research on, for example, rare dragonflies, spadefoot toads, Blanding's turtles, and endangered ferns.

#### DATA MANAGEMENT

Substantial growth of the rare species and natural community data base. The data base presently contains nearly 4,000 computerized records; two-thirds of these have been verified in the past eight years. Rare species have been documented in 310 of the 351 towns in the Commonwealth.

Maintenance of extensive records on the sources of biological diversity information in the state; boundaries and management of public lands and private conservation areas; and the national and international statuses of state-listed rare species.

#### LAND PROTECTION & ENVIRONMENTAL REVIEW

Nomination of the regionally significant Katama Plains grassland for immediate acquisition. The site has now been protected by the town, the state, and The Nature Conservancy. The MNHP is currently assisting with an ecological management plan.

Initiation of the Division of Fisheries and Wildlife's acquisition of unique habitats such as the ecologically significant Mashpee Pine Barrens. The MNHP also provides assistance for land acquisition projects of other agencies such as the Department of Environmental Management, the Division of Conservation Services, and The Nature Conservancy.

Identification of key privately-owned rare species sites, such as Alum Hill in Sheffield, which are subsequently registered by The Nature Conservancy's Natural Areas Registry Program. This program provides low-cost, voluntary protection of critical habitats. Sixty sites, with a total of 150 private landowners, have been registered to date.

Registry of rare species habitat on publicly-owned land such as the Sunderland Water District's Dry Brook. Through the Natural Heritage Areas Registry, the MNHP notifies public agencies and land managers of the locations and significance of rare species on their properties. Over 30 federal, state, and town properties are being protected through this program.

Cooperation with the U.S. Army Corps of Engineers to protect the largest known inland population in New England of the rare Golden Club on one of their properties, through designation of the Corps' first Natural Area in New England.

Review of Open Space Plans for 183 towns identifying significant rare species habitats in need of protection.

Consultation with the Department of Public Works resulting in a proposed highway realignment away from the site of 60% of the world population of the New England White-bracted Boneset. More than 1,400 such projects are reviewed yearly for potential impacts to rare species.

For additional information, please contact:

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